June 21, 2007 Vol. 12, No. 46

Atlantis flies home after 13 days in space

◆ **Mission Update:** Atlantis and its crew are scheduled to land at 1:55 p.m. today at KSC to wrap up the year's first International Space Station assembly mission. In the event of a wave-off, the second landing opportunity will be at 3:30 p.m. on orbit 203.

◆ **NASA News Update:** At a ceremony held Monday at the International Paris Air Show at Le Bourget, France, NASA Administrator Michael Griffin and European Space Agency Director General Jean-Jacques Dordain signed two agreements defining the terms of cooperation on the James Webb Space Telescope, or JWST, and the Laser Interferometer Space Antenna, or LISA, Pathfinder mission. Although it will operate over a different range of wavelengths, the James Webb Space Telescope is considered the successor to the Hubble Space Telescope. Its launch is targeted for 2013 and it will operate for at least five years.

The telescope is a mission of international cooperation between NASA, ESA and the Canadian Space Agency to investigate the origin and evolution of galaxies, stars and planetary systems. At the heart of the observatory is a large telescope, which has a primary mirror measuring 21.3 feet in diameter (compared to 7.9 feet for Hubble) that provides a relatively large field of view.

A set of four sophisticated instruments, including a fine guidance sensor for precision pointing, will combine superb imaging capability at visible and infrared wavelengths with various spectroscopic modes to learn about the chemistry and evolution of objects in our universe.

The telescope will operate well outside the Earth's atmosphere at a spot in space called the second Lagrangian point or "L2" located 1 million miles -- or four times farther than the moon's orbit -- in the direction opposite the sun. From this location, the observatory is expected to revolutionize our view of the cosmos as Hubble has.

According to the agreement, NASA is responsible for the overall management and operation of the JWST mission and will build the spacecraft, the telescope and the platform that will house the instruments. ESA will provide an Ariane 5 ECA rocket for the telescope's launch.

NASA also will provide a major instrument, the Near-Infrared Camera, through the University of Arizona in Tucson. ESA will provide the Near-Infrared Spectrograph operating over similar wavelengths. NASA will provide the instrument's detectors, which will measure the wavelengths of light emanating from the stars being observed.

NASA also will provide the microshutters, which are used to select which star in the field of view will be observed by the detectors.

The third instrument on board is the Mid-Infrared Instrument. It is being built through a consortium of nationally funded European institutions, which are responsible for the instrument's optical assembly, and NASA, with coordination through ESA. Canada will provide the fourth instrument on board, the Fine Guidance Sensor/Tuneable Filter Imager.

Did You Know? Summer arrives with the solstice at 2:06 p.m. **today.**

NASA, ESA agree to share launch of new telescope

■ **KSC Day With the Miami Dolphins —** The Miami Dolphins are offering discounted tickets to all KSC and CCAFS employees before individual game tickets are on sale to the general public. Game-day discounts will be offered for the Miami Dolphins vs. Buffalo Bills game on Nov. 11 at the Dolphins Stadium. Game time is 1 p.m. A presale of discounted tickets will take place via the NASA Exchange from 9 a.m. to 1 p.m. at the OSB main lobby on Friday.

Tickets will be discounted to $43 (with no surcharges added) for upper corner/end zone (rows 20-30) seating areas, a savings of approximately 30 percent per ticket. Ticket orders will need to be paid for at the time of the presale. All sales are final. Tickets will be available for pick-up no later than Aug. 31at a specified location, date and time when announced. For more information, please contact Lorie Austin at 867-7010. ■

■ **Keeping KSC Safe —** If you identify an unsafe condition or hazard, report it to your supervisor and, if necessary, to the appropriate trouble-call organization for corrective action: SGS Duty Office, 853-3231, or USA Trouble Call Desk, 861-6342.

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